

In the claims:

Please cancel original claims 1 through 22, without prejudice or disclaimer, and substitute therefor the following new claims 23 through 47:

Sub 85 23. A method for the treatment of contaminated material comprising feeding said contaminated material via an input unit to a conveyor system extending through a treatment chamber which slants upward in the conveyor transport direction and which comprises first treatment zone adjacent the lower end of the treatment chamber and second treatment zone extending from the first treatment zone to the upper end of the treatment chamber, heating and treating the contaminated materials in said treatment chamber, and discharging the treated materials via a discharge element, wherein said contaminated material is moistened in a liquid reservoir in said first treatment zone by liquid present in the contaminated material or water added from outside the treatment chamber, the liquid in said liquid reservoir being to a temperature lower than the boiling point of water, and thereafter heating the contaminated material in said second treatment zone at least partially to a temperature above the boiling point of water in order to build up steam pressure to disinfect the contaminated material.

24. A method according to claim 23, wherein said contaminated material is contaminated with infectious microorganisms.

25. A method according to claim 23, wherein the second treatment zone is subdivided into a plurality of sections each having a different temperature.

26. A method according to claim 23, wherein the steam pressure in said second zone is generated by evaporation of the inherent moisture in the contaminated material.

27. A method according to claim 23, wherein the steam pressure in said second zone is generated by evaporation of liquid water added to the contaminated material from outside the treatment chamber.

28. A method according to claim 23, wherein the steam pressure in said second zone is generated by introducing steam into said treatment chamber.

29. A method according to claim 23, wherein the liquid level in said liquid reservoir is regulated by an overflow.

30. A method according to claim 29, wherein liquid discharged from said overflow is recycled back to the liquid reservoir.

31. A method according to claim 23, wherein the contaminated material to be treated is introduced in portions into the treatment chamber such that a plurality of portions are present in the treatment chamber at the same time, said portions being introduced into and discharged from the treatment chamber through slide valves or locks.

32. A method according to claim 23, wherein said conveyor system comprises a screw conveyor.

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33. An apparatus for treating contaminated material, said apparatus comprising a treatment chamber which slants upward from a lower inlet end to an upper discharge end and which comprises first heating zone adjacent the lower end of the treatment chamber and a second heating zone extending from the first treatment zone to the upper end of the treatment chamber, an input unit and said inlet end for introducing contaminated material to be treated into the treatment chamber, a discharge element at said discharge end for discharging treated material from said treatment chamber, a conveyor system for conveying material to be treated through said treatment chamber, means for moistening contaminated material in said first heating zone, means for heating liquid in said first heating zone to a temperature below the boiling point of water, and means for heating moistened contaminated material in said second heating zone at least partially to a temperature above the boiling point of water to generate steam pressure to disinfect the contaminated material.

34. An apparatus according to claim 33, wherein the second heating zone is subdivided into a plurality of sections heated to different temperatures.

35. An apparatus according to claim 33, further comprising means for introducing steam into said second heating zone.

36. An apparatus according to claim 33, further comprising means for introducing liquid water into said first heating zone.

37. An apparatus according to claim 33, wherein said first treatment zone comprises a liquid reservoir, and further comprising an overflow for regulating the liquid level in said liquid reservoir.

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38. An apparatus according to claim 37, further comprising a collection vessel which receives liquid from said overflow and a return line which connects said collection vessel to said treatment chamber for recycling liquid from said collection vessel back to said treatment chamber.

39. An apparatus according to claim 38, wherein said overflow, said collection vessel and said return line are maintained at the same pressure as said treatment chamber.

40. An apparatus according to claim 33, wherein at least one of said heating means is provided in an inner wall of said treatment chamber.

41. An apparatus according to claim 33, wherein at least one of said heating means is provided in said conveyor system.

42. An apparatus according to claim 33, comprising means for controlled introduction of microwave energy into said treatment chamber or said conveyor system.

43. An apparatus according to claim 33, wherein said conveyor system comprises a screw conveyor.

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44. An apparatus according to claim 43, wherein said screw conveyor has a bearing at only one end and rests on slide runners.

45. An apparatus according to claim 33, further comprising a shredder in said input unit.

46. An apparatus according to claim 33, comprising slide valves or locks for opening and closing said input unit and said discharge element.

47. In combination, a shredder unit and a plurality of treating apparatus according to claim 33, said treating apparatus being arranged in parallel so that they can be supplied simultaneously or sequentially by the shredder unit.

In the abstract:

After the last page of the claims, please insert the Abstract of the Disclosure found on the accompanying sheet.